

Need for Cyber Security

Overview of Cyber Security



In today's session, you will learn about:

- History of Cyber Security
- Scope of Cyber Security
- Importance of Cyber Security
- Types of Cyber Crimes
- Cyber Security Controls
- Cyber Security Professions

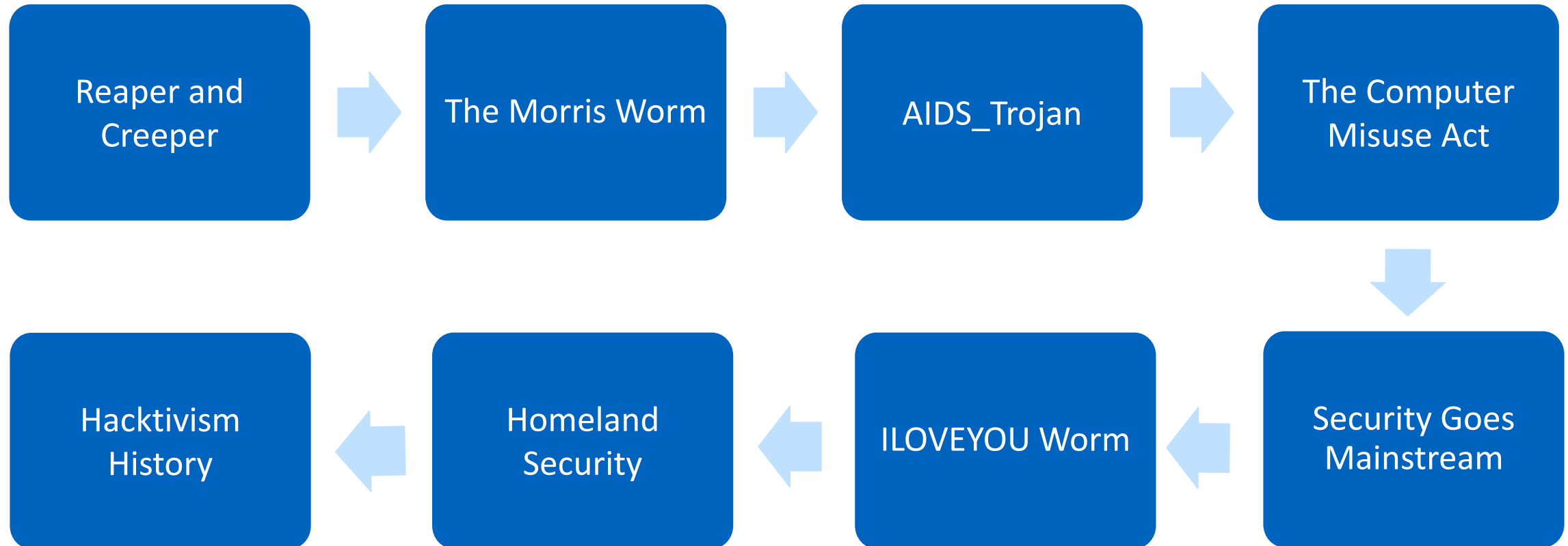


Source: Freepik

How did the First Cyber Security Attack occur?



Created by fae frey
from Noun Project



Skilled Professionals shortage of **1.8 mil** to **2.5 mil** worldwide.

46%
Of 1200 Enterprises admit
to Cyber Data breach

**\$ 100
Billion**
Organizations
spend on
Cybersecurity
in 2020

3000
Companies that list
themselves as
Cybersecurity experts

**\$ 6
Billion**
Capital raised
by
Cybersecurity
Startups

3
Seconds, Every
new malware is
created

37%
Job Growth in Indian
Cybersecurity space

9-15%
Higher salaries for
Cybersecurity Professionals

What are the types of Cyber Crimes?



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Virus Attacks on Computers

Identity theft can have many adverse effects. The fraudster can use stolen personal information and identity proofs to:

- Gain access to your bank accounts
- Apply for loans and credit cards or open insurance accounts
- File a tax refund in your name and get your refund
- Obtain a driver's license, passport or immigration papers
- Create new utility accounts
- Get medical treatment on your health insurance
- Assume your identity on social media
- Give your name to the police during an arrest etc.



Source: The Noun Project



Source: The Noun Project

1. Phishing: Sending fraudulent emails
2. Vishing: Using telephone to obtain sensitive information
3. Smishing: Using SMS to send fraudulent messages
4. Lottery Fraud: Using personal information to congratulate for a fake lottery win
5. Credit/Debit Card Fraud: Using sensitive information of debit/credit card
6. Job Related Fraud: Sending a fake job e-mail with attractive salary

Name of the Activity

Match the Column

Instructions

Mode: **In-session**

Duration: **5 minutes**

Materials Required: **None**



1. Phishing
2. Smishing
3. Vishing
4. Credit/Debit Card Fraud
5. Lottery Fraud

- a. Using sensitive information of debit/credit card
- b. Sending fraudulent emails
- c. Using personal information to congratulate for a fake lottery win
- d. Using telephone to obtain sensitive information
- e. Using SMS to send fraudulent messages

1- b

2- e

3- d

4- a

5- c



Cyber Bullying

Name of the Activity

Identify the Social Media Fraud

Instructions

Mode: **In-session**

Duration: **5 minutes**

Materials Required: **None**



- In this fraud, the attacker becomes friends with the victim on social media and gains victim's affection over a period of time. **Romance fraud**
- In this fraud, the attacker harasses a victim using electronic communication, such as e-mail, instant messaging or IM, messages posted on a website or a discussion group. **Cyber Stalking**
- In this fraud, the attacker becomes friends with the victim on social media, gains victim's trust by frequent interactions, and finally, extracts money or harms the victim. **Sympathy Fraud**
- This technique fraud sending, posting or sharing negative, harmful, false content about someone else with the intention to cause embarrassment or humiliation. **Cyber Bullying**

Digital Payments related attacks

Hacking of Bank Account because of weak password

Hacking multiple accounts because of same password

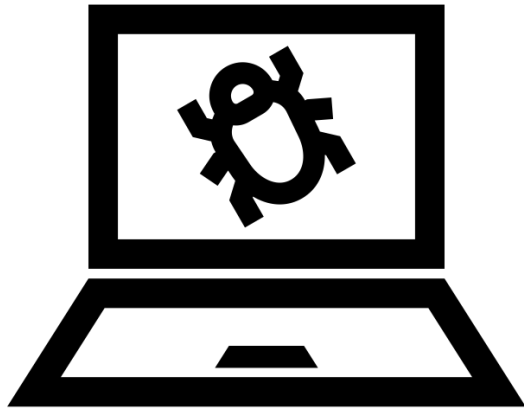


Source: The Noun Project

Fraudsters attack the victim by infiltrating through such popular mobile applications.



Source: Pixabay



Source: The Noun Project

Attack through external devices

Attack by downloading files from un trusted websites

Attack by installation of malicious software

Name of the Activity

Behind the Door Number

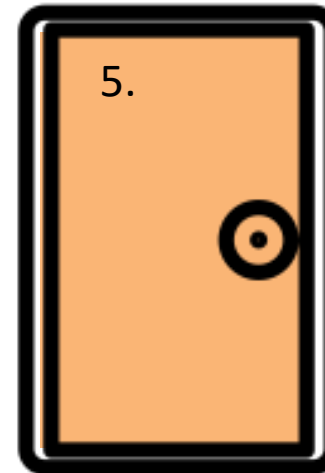
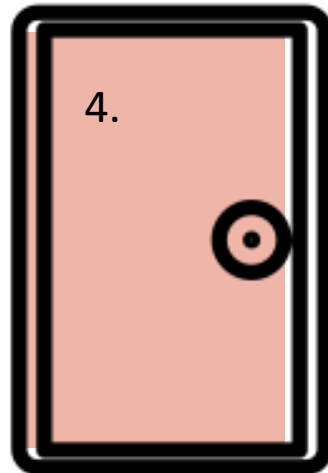
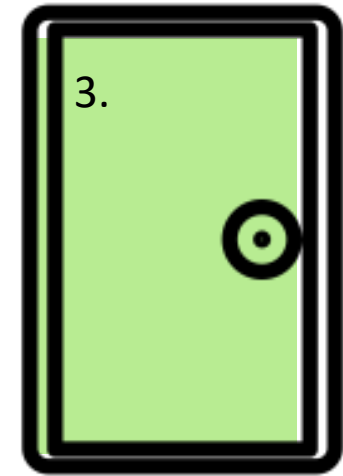
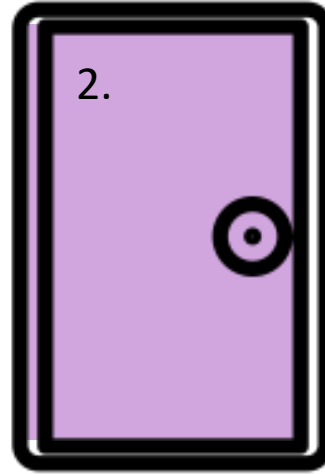
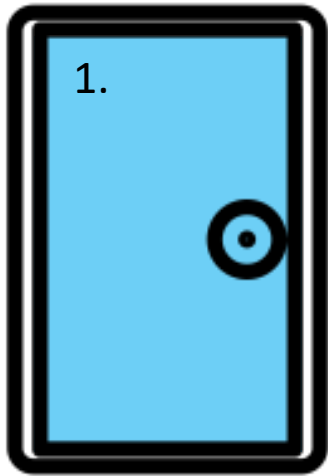
Instructions

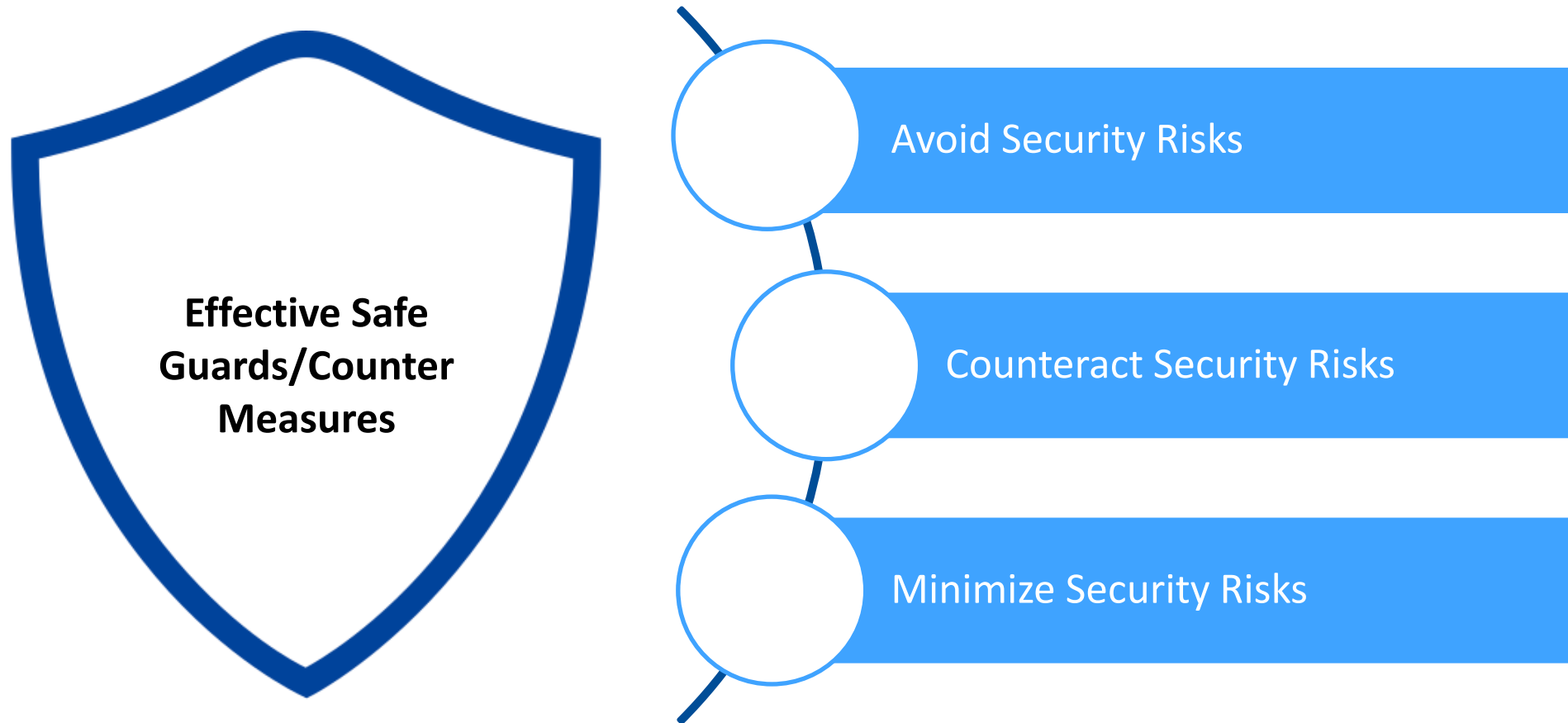
Mode: **In-session**

Duration: **5 minutes**

Materials Required: **None**







Controls may be categorized according to **Functionality** and **Application Controls**.

Preventive

Detective

Corrective

Deterrent

Recovery

Compensating

Name of the Activity

Who am I?

Instructions

Mode: **In-session**

Duration: **5 minutes**

Materials Required: **None**



- I try to prevent security violations and enforce access control. **Preventive Controls**
- I am an alternative arrangement for other controls when the original controls have failed or cannot be used. **Compensating Controls**
- I include disaster recovery and business continuity mechanisms, backup systems and data, emergency key management arrangements and similar controls. **Recovery Control**
- I come into play when preventive controls have failed or have been circumvented. **Detective Control**
- My role is to discourage potential attackers. **Deterrent Control**

Physical Controls

Administrative Controls

Technical/Logical Controls

What are the different roles for a Cyber Security Professional?



Created by fae frey
from Noun Project

Chief Information Security Officer

Forensic Computer Analyst

Information Security Analyst

Penetration Tester

IT Security Engineer

Security Systems Administrator



Source: Pixabay

Certified Information Security
Manager (CISM Certification)

Certified Information Systems
Security Professional (CISSP
Certification)

Certified Information Systems
Auditor (CISA Certification)

Computer Hacking Forensic
Investigator (CHFI Certification)

Certified Ethical Hacker (CEH
Certification)

CompTIA Security+ Certification

Offensive Security Certified
Professional (OSCP) Certification

Offensive Security Certified
Expert (OSCE) certification.

